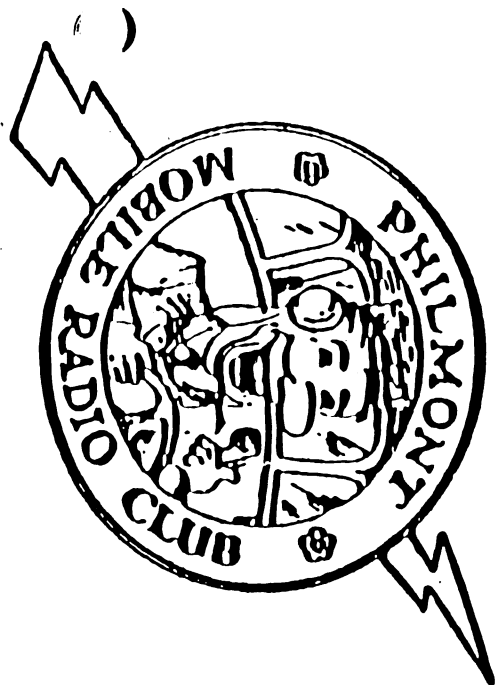
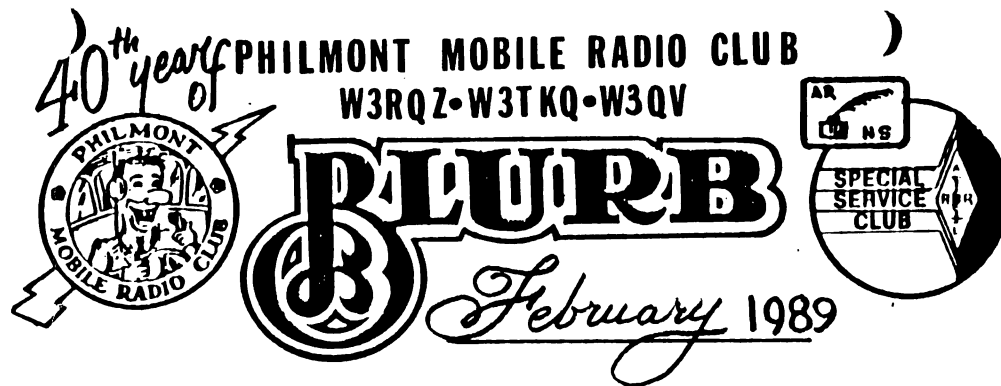


FIRST CLASS MAIL

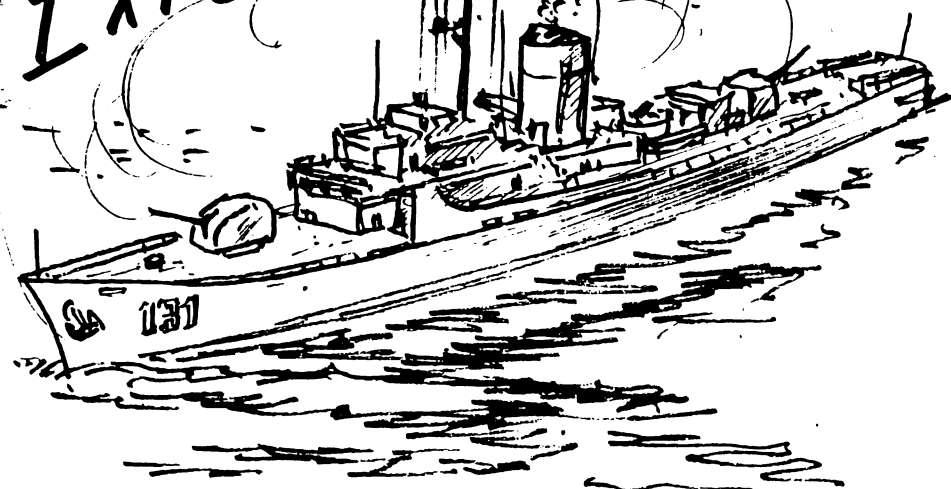


the blurb
A Philmont Mobile Radio
Club Publication
125 Keeley Avenue
New Britain, PA 18901



The PHILADELPHIA

EXPERIMENT



OCTOBER 23 1943

The BLURB

VOLUME XXXIX

NUMBER 2

is published monthly by and for the members of The PHIL-MONT MOBILE RADIO CLUB, INC. whose purpose is to promote Amateur Radio in general, and Mobile Radio in particular. Copying and quoting is permitted with a credit line. We gladly exchange publications with other amateur radio clubs; requests should be sent to the Editor. BLURB subscriptions are available to non-members for \$6.50 addressed to the Treasurer. The club meets at 8 PM on the first non-holiday Monday of every month at The Franklin Institute, 21st Street and the Benjamin Franklin Parkway, Philadelphia. Use the rear entrance. ALL VISITORS ARE WELCOME!
Amateur Radio License Examinations - every meeting night at 6:30 PM-SHARP!

CLUB INFORMATION

- 24 Hour Information Number at W3TKQ -

(215) 448-1139

Mailing Address: P.O. Box 88, Abington, PA 19001

STATIONS

W3QV - 147.03 MHz. Repeater - 8200 Ridge Avenue, Philadelphia, PA - Trustee W3BBB

W3RQZ - 1176 Old York Road, Abington, PA - Trustee W3VVS

W3TKQ - The Franklin Institute, Philadelphia, PA - Trustee W3PWG

W3TKQ Operators: WA3AAL, Fred; N3ABS, John; K3TEF, Frank; KA3PJC, Jack; W3PWG, Rollie

OFFICERS

PRESIDENT: W3UY, Larry Clifford, 615 Apache Lane, Norristown, PA 19401

VICE PRESIDENT: WA3AUN, Mark Ackerman, 821 Moredon Road, Meadowbrook, PA 19046

SECRETARY: N2RM, Rob Moore, 9U Rose Rita Terrace, Hammonton, NJ 08037

TREASURER: KB3IV, Ed Masarsky, 15 Poe Avenue, Wyncote, PA 19095

DIRECTORS

W3BBB (90); K3GBA (A); W3IIM (A); W3IIN (A); KB3JW (89); K3KUD (89); W3LKI (90)

COMMITTEES

Archives: W3IIN
Awards: K3KUD
Banquet: N3EBE
BLURB: W3PST
Directory: WB3KOJ
DX: WA3AUN

Membership: W3IIN
MO-COM 5: N3DHI
Net Control: WB3CMM
Program: WA3AUN
Publicity: N3EAY
Refreshments:

Repeater: W3BBB
Special Events: N3FVI
Sunshine:

VE Program: ND3Q
W3TKQ: W3PWG
Welcome: W3VVS

BLURB STAFF

Editor: W3PST, Woody Haldeman, 125 Keeley Ave., New Britain, PA 18901

(215) 345-1890

Artist: Sam Kuncevic

Assistant Editors: W3IIM & WB3KOJ

Typist: W3IIN

DEADLINE: To be assured of publication in the current month, all copy MUST be in the hands of the Editor at the Bored of Directors' Meeting.

NET SCHEDULE

SUNDAY	09:30	147.030 MHz FM	"SUNDAY MORNING 2 METER NET"
	10:00	28.400 MHz SSB	"10-ON-10 NET"
	10:20	3.993 MHz SSB	75 METER NET
TUESDAY	20:00	147.030 MHz FM	CW PRACTICE NET

* UPDATE *

FEB 6 General Meeting program:
General aviation communications and navigation equipment by N3DHI

Feb 15 Directors' meeting at
KA3AMO & N3FTC's

--- * ---

MAR 6 General Meeting

Mar 15 Directors' meeting at
KB3IV & N3GLU's

--- * ---

APR 3 General Meeting

Apr ?? Dinner meeting with
DELMONT ARC

--- * ---

MAY 1 General Meeting

May 17 Directors' meeting at
W3UY's

NEW FLORIDA MAP AVAILABLE

(Florida Skip) - The 6th edition of the Florida Skip 2-Meter map is off the press. Editor Bill Tucker, W4FXE indicates the new map is 100% updated. It is printed on 11 x 17 light yellow paper with black ink. Each city has its own box containing repeater frequencies.

Another list on the side makes it easy to see which city has what frequency.

To obtain the new Florida repeater map, send 25 cents with business sized SASE to: MAP, Box 501, Miami Spring, FL 33266

The new Florida 440 Mhz repeater map is also available, with editor Harlin Cohn, W4UIM saying it is much like the 2-meter map, but printed on light green paper.

An extra 25-cents for the 440 repeater map can be mailed with the 2-meter map for 25 cents postage on your SASE.

HAVE Y() . . . ?

Have you ever been out on the highway, and needed to call for help on the repeater?

Have you noticed that the bad weather seems, as if by magic, to make all the "rag chewers" come out of the woodwork?

Have you noticed how long a minute-or-two seems when you're waiting for a long-winded talker to end so you can break-in for help?

Have you noticed that the folks who have already made it home safely, or have been home all day, seem to be the ones who tie-up the repeater?

Have you ever considered that ours is a "MOBILE" radio club, and that the repeater is NOT the place to "hold-forth" during "highway emergency" conditions?

Perhaps we need a special "highway-emergency" repeater mode which, when activated, will reduce the time-out setting to 45 seconds.

Think about it. Your emergency traffic might be at stake.

W3IIM

THANKS !

The archives have just been significantly increased by Rollie's latest offering: the official club minutes book from December, 1962 through December, 1965!

Included in this red-leather-(ette?) journal are the original articles of incorporation - dated November 7, 1958, meeting attendance records, and early versions of bylaws and rules of election, etc.

An observation: In 1964 there was an average of 6 members on each committee! (Today we seem to have trouble getting one member per committee.)



APPLE BYTES...

FEBRUARY BIRTHDAYS

04-EUNICE BOHLANDER (XYL W3VVS)
05-MICHAEL L. CONCORDIA - WB3KAC
-STUART BLAKE TENER - KA3TNH
06-P. C. MARRUCHELLA - WB3EKK
07-LOU ANDREWS (XYL W3IRS)
10-SHARON MASARSKY - N3GLU (XYL KB3IV)
11-JERRY RUSSELL - K3JR
14-KAY RUSSELL (XYL K3JR)
16-VIRGINIA ZIEGLER (XYL WB2SZF)
17-SAMUEL C. SMITH - K3GBA
18-DR. LESTER W. BURKET - W3HQJ
-MIM ROESHMAN (XYL W3LKI)
28-ROGER N. COX - K3TYB
-ROBERT LACHMAN - W3UG

HELP PHIL-MONT

ARE YOU PLANNING TO JOIN AREL OR RENEW YOUR CURRENT MEMBERSHIP? HELP PHIL-MONT BY JOINING OR RENEWING THROUGH THE CLUB...CONTACT KB3IV FOR THE DETAILS.

DIRECTORY UPDATE

LAST CALL ... IF YOU HAVE ANY CHANGES FOR THE 1989 DIRECTORY, OR WANT TO MAKE ANY CHANGES IN YOUR INFORMATION (BIRTHDAYS ETC.) LET ME KNOW NOW. NEW DIRECTORIES WILL BE MAILED WITH THE APRIL OR MAY BLURB.

....DE WB3KQJ

QTX !

Visitors at W3TKQ during 1988

	MI	DX
90 PA	2	F6BCP
72 NJ	2	G4GLG
23 NY	2	G4HGV
14 MD	1	G7AQR
7 FL	1	GW4WFX
5 GA	1	H89RS
5 IN	1	JA2WJ
4 CA	1	JH2DDF
4 DC	1	JQ1HFT
4 DE	1	LU5EJX
4 VA	1	ON1BRI
4 WA	1	VE2FYD
3 MA	1	VE2GWE
3 TX	1	VK5KEF
2 AZ		

261 amateurs from 33 states, plus
14 DX.

W3PWG

VE Statistics 2/88 to 1/89 KN3M

MONTH	ATTEN- DANCE	Nov	Dec	Jan	Adv	Ext
Feb	11	1	5	1	2	
Mar	14	1	2			
Apr	6		1			
May	7					
Jun	11	1	3	3	1	1
Jul	11		2			
Aug	11	2	2			
Sep	5		2	1		
Oct	13	4	1	1	1	1
Nov	13	3	4	2	1	
Dec	7	2	1		2	
Jan	8		4	1		
117		14	27	9	7	2

Total elements given: 201

The PREZ SEZ
W3UY

Elsewhere in this month's BLURB appears recently compiled statistics of the results of the "VE" program conducted at the Franklin Institute. They are a permanent tribute to the foundation set by Jake Kovalchek, AK2I, and continued by Ramona Dabagian, KH3M.

It is not an easy task to complete the complex paper work necessary to process new hams, as well as those who upgrade along the road of ham radio. It is through the help of other VEs in the club that the program has been such a success. The professionalism with which they all conduct the examining sessions is self evident. No problem has tarnished the reputation of the program here at the Institute.

Each of those involved rate a special note of appreciation from the club.

Time has moved on. Both Jake and Ramona have made their contribution to the program. With the February exams, Dusty Rhodes, KD3Q, has agreed to guide our program. I personally thank Dusty - who has been a very frequent examiner since being certified - for stepping forward and taking over. But, Dusty needs help to continue the high standards.

In our club, we have Extra Class hams who have yet to become VEs. To those of you so described, I invite you to get in touch with Dusty and become a VE. Acting as a VE is a very satisfying experience. The look of accomplishment by the successful candidates, be they teenagers or through to senior citizens, when they receive their certificate, is an unwritten paragraph of "thank you".

Won't those of you who are Extra Class, but not now VEs, join us in this great service to ham radio? There is also a need for others with Advanced as well General Class licenses to help with the paper work. Please help us to continue the high quality in the testing program. It will be a plus for our club.

SAMA CORNER

TO PHILMONTERS:
ANY ONE KNOWING A
PUBLISHER WILLING TO 'RISK'
MY 'STORY'... LET ME KNOW. I
HAVE TRIED 3 SO FAR.... THEY
WON'T TOUCH IT WITH A 9 FT
WHIP ANTENNA.

MINUTES
DIRECTORS MEETING
DECEMBER 1988

The December mid month meeting was held at the Broomal, PA QTH of Charles A. Andrews "Frenchie", W3IRS. The large turn out included W3BBB, WB3CMM, W3DSG, W3LKI, K3GNM, KB3IV, W3VVS, W3GQD, W3IRS, W3UY, N3EAY, and N2RM. As usual N3EAY called the meeting to order at 8pm.

KB3IV quickly dispensed with the Treasurers report. 67 members have paid their 1989 dues so far.

Membership

W3BBB handled the membership committee activities, and Stuart Tener, KA3TWH, and Virginia Macrie, KA2ZZA were voted in as new members.

W3TKQ

It was mentioned that W3TKQ got the replacement coax cable but it was not known whether it has been installed yet.

KB3IV said Dick Bectel has not given his usual contribution yet this year. He therefor made the motion that Phil-Mont provide the money for the purchase of callbooks for W3TKQ. W3LKI seconded the motion and the board approved it.

Technical Committee (W3BBB)

Jim discussed interference problems at the repeater.

MOCOM (W3BBB)

Earphones have not been purchased yet.

AWARDS (W3BBB again)

They will be made in January. Ballots have been tabulated but more information is needed. 13 ballots have been received.

BLURB (W3IRS)

Sam Kuncsevitch wants to write a 3 month article in the Blurb about the "Philadelphia Story." It was decided that W3BBB will get back to him about it.

New Business

N3EAY showed the group the ARRL Club Presidents Workbook which he had just received at about the end of his term as President.

Banquet

W3BBB will be asking during the nets in the next few weeks as to the interest in the club for a 40th Anniversary Banquet. It would be held in the first 3 weeks of November 1989 at a price of approximately \$25 per person

Proposed Ham Fest

WB3CMM indicated that there are several clubs interested in getting together for an Indoor/Outdoor hamfest to be held probably in Feb. 1990 at Sun Center. He agreed to be Phil-Monts liason with Dennis, WB3LGJ. It is anticipated that the profits earned will be split based upon the participation of the clubs.

Volunteer Examinations.

A replacement for Ramona is needed. W3UY, agreed to contact Dusty, ND3Q as a possible replacement.

Meeting was adjourned at 9:45PM and refreshments provided by Lou were enjoyed by all.

Respectfully Submitted,

Robert R. Moore, N2RM, Secretary

happened on October 3, 1979. At about 15:00, a tornado touched down in Poquonock, a section of Windsor, Connecticut, and cut a 1/2 mile wide swath, three miles long, right to the door of the terminal building at Bradley International Airport in Windsor Locks.

The terminal is where the National Weather Service office is located, with communications systems to its radar site, NOAA Weather Radio and the State Office of Civil Preparedness. They were suddenly deaf and mute. Even the terminal's emergency generator went down shortly after it was triggered on.

Former Windsor police chief, Maxie Patterson, sent a car into the area to find out the extent of the problem. Then another. Then he called the town civil preparedness director and said, "It's like a black hole up there. I've sent officers to investigate and hear nothing back." Without normal communications, officials literally didn't know what was going on.

The scene left officers speechless. They got out of their cars to help the injured. Houses were literally leveled. Some 52 homes were destroyed, 342 buildings damaged. Three people died and others suffered injuries or emotional trauma. A volunteer fireman happened to be a ham. He went on a couple of area repeaters at about 17:00 and reported the disaster, asking for hams to help. Some 125 amateurs checked in at the town's civil preparedness office by 20:00. By the time the four-day operation was over, more than 500 amateurs had provided essential communications.

In this instance, the police radio system remained operational. But it was so overloaded it couldn't handle all of the necessary traffic. Hams were positioned at sensitive locations as observers. Search teams going in to find injured people each had a ham operator along to relay messages to the ambulance services.

Other hams were assigned to town officials who had business in the disaster area but are not normally in the town's communications system. When evaluation teams were sent in, they communicated by amateur radio.

There are incidents of amateur radio supplementing police emergency communications every month somewhere in the country. When an oil storage tank burst and dumped a million gallons of oil into the Monongahela River at Floreffe, Pennsylvania in January 1988, amateurs monitored the situation, checked that contingency plans were working, and relayed information to city and environmental officials.

In December 1987, the National Weather Service issued a tornado watch for eastern Arkansas. Hams trained as observers watched, too, and the first report of a tornado on the ground was relayed through the SKYWARN NET. NWS radar had not detected the funnel but a warning was issued on the basis of the amateur report.

There was an incident in Connecticut where radar indicated a warning should be issued. But an amateur on the scene reported high altitude activity with nothing affecting the ground. A needless warning was averted.

When Northwest Airlines flight 255 crashed at Detroit Metro, amateur radio responded and set up communications between the crash site and the emergency operating center. Hams also activated additional links on other repeaters to interconnect emergency services and to communicate among area hospitals.

When the Pope visited San Antonio, hams set up five voice and two data channels to handle the expected overflow of message traffic. By mid-afternoon it became obvious the plan for handling missing and displaced persons was inadequate. The hams started another radio net on a different frequency.

Continued next month.....
Tnx to W3PXY and LAN and ORDER.

AMA)R RADIO: Back Up For Police - Part 1 of 2 -

Hurricane Gloria, in 1985, hit the eastern coastline hard. The storm wasn't quite so bad by the time it reached Newington, Connecticut, but it was enough to knock out all electrical power. Some residents were without power for four days.

The Town Hall lost power, and even the telephone switchboard went down. The storm command center moved to the Police Department which was operating on an emergency generator. But the Police Department lost telephone service, too. Amateur radio operators quickly responded to coordinate storm reports and to backup the overloaded police radio system.

It was a routine operation for police and the "hams." They had practiced such a scenario many times.

The Newington Amateur Radio League, an affiliate club of the American Radio Relay League (ARRL) which happens to be headquartered in Newington, has worked with its local police department for a decade.

It was in January, 1983 that Chief Thomas G. Ganley decided to put amateur radio to a real test. A simulated loss of the police communications system was planned - and the hams responded.

At 10:00, the police radio was shut down. Hams were assigned to the police dispatch center. Other hams were dispatched with each patrol car. The rest of that shift, until 15:25, was served exclusively by amateur radio.

The hams compared their 145 and 220 MHz bands with the police 460 MHz frequency and discovered communications were better on the amateur 220 band than on the police 460 band. That's one advantage of being able to operate on different frequency bands. You can choose the one that best meets the need.

Hams have to be part of any

such emergency operation requiring extra communications. Under Federal Communications Commission (FCC) rules and regulations, only licensed Amateur Radio Operators may operate on amateur frequencies.

Actually, a licensed amateur may act as a control operator. Newington Dispatcher Paul Jensen and the officers on duty could talk on the amateur radio but the control operator must be on the premises.

"The drill went smoothly," Chief Ganley recalled. So smoothly that volunteer amateurs are now issued photo identification cards under a formal agreement establishing them as the official backup communications group for the town's police department.

Amateur Accommodations

When the department modernized its communications system and dispatch center, an extra operating position with its own radio was provided in the police console strictly for an amateur. An amateur antenna also joined other antennas on the radio tower. Now, hams need only get themselves there, they don't have to bring radio equipment along.

Amateur Radio is not the same as Citizen's Band. Amateurs are permitted up to 1,000 watts of output power on a range of frequency bands that work in an extended local area to literally around the world.

Obviously, hams use the band and power level that best serves the situation, in most cases a local FM repeater operating around 146 or 220 MHz. CBs are limited to five watts of AM output in the area of 27 MHz and repeaters aren't allowed. Amateurs must pass examination by the FCC to get their licenses. There is no licensing of CBs. While CB clubs in some areas may be a help to local law enforcement, the capabilities of amateur radio far exceed those of CB.

One example of how amateurs are sometimes put to the test

NEW MEMBER APPLICATION

NAME: Lee Pamplin
HANDLE: Lee
CALL: N3EKR
CLASS: Extra
ADDRESS: 5647 Arlington St.
Phila, PA 19131
HOME PHONE: (215) 877-5431
OCCUPATION: Fire Paramedic

HAMFESTS

We'll print an ongoing schedule of Hamfests based on information received. Please help us keep our list current. If you don't see your favorite event listed here, it's because YOU didn't send it to W3IIM prior to the BLURB deadline!

MAR 5 DOVER, PA
YORK WINTERFEST

APR 28-30 DAYTON, OH
HAMVENTION

REPEATER

Due to the recent "grunge" on the repeater, the special "sleep" mode may often be employed after midnight, so that our loyal control operator can get some uninterrupted sleep.

The repeater was put in that mode on Sunday 1/22 at approximately 01:30. Later in the morning, the early-morning, pre-net, kerchunkers thought the repeater was down. Apparently they didn't remember that, when in "sleep" mode, the repeater can be "awakened" for a 30 minute period simply by keying 611 on the input frequency.

(Be nice to your sleeping control op - entering 611 will put it back to sleep when you're finished.)

Jim: now we'll really see who reads the BLURB!

IT SEEMS) ME....

In Phil-Mont, as in any organization, there are those who are very active in the running of the club and are usually very visible. There are also those who are satisfied to be "just members". Between the two is the largest group of members, many of whom have contributed much to Phil-Mont in the past, and others who are currently engaged in projects or efforts which contribute to the welfare or knowledge of all of us.

No matter which group you fall into, we're glad to have you, but we want to know about the projects, ideas, and efforts that are being put forth on behalf of the club, or amateur radio in general. To promote and recognize such efforts, the club annually presents awards to members, and, in some cases, nonmembers, who, in the opinion of their fellow-members and the Awards Committee, deserve such recognition.

In recent years there has been poor response to the Awards Committee's request for nominations for awards - a situation unfair to the deserving and self-spawning of disinterest.

Let's have a better year in 1989. The Awards Committee needs your input and your interest; we can't operate fairly unless you help! Let us know who is doing things, and when we ask for nominations, show your interest in Phil-Mont by responding. We will all benefit from a renewed sense of pride in what Phil-Monters are doing.

K3KUD
Chairman, Awards Committee

(215) 448-1139

Net Control operators:
Announce this number on each net!

AWARD(F THE PHIL-MONT MOBILE RADIO CLUB (

GEORGE B. WEED MEMORIAL, W3KN

To be presented to a person, group, or organization, not necessarily members of Phil-Mont or a radio amateur, who, in the opinion of the Awards Committee has made a significant contribution to the Club or to Amateur Radio, and who in so doing has expressed the philosophy of unselfish helpfulness for which George Weed will be remembered.

The award to be inscribed "In Recognition of Service to Amateur Radio"

Need not be awarded annually.

LEROY HAUSER MEMORIAL

To be presented to a Club member who has, in the judgement of the Awards Committee, contributed to the welfare of Phil-Mont by distinguished service beyond that which is normally expected of a member, for an extended period of time.

The award shall be inscribed "For Distinguished Service"

Need not be awarded annually.

PHIL-MONTER OF THE YEAR

To be presented annually to that Club member whose contribution to Phil-Mont has been outstanding. May be for a single or extended effort within a given year.

The award shall be made on the basis of a secret vote by the General Membership. In the event that fewer than 33% of the total membership cast votes, the Awards Committee shall caucus to select a suitable recipient. Should no member be considered to merit the award it need not be given in that year.

LADY PHIL-MONT AWARD

To be presented to the wife or daughter of a Club member in recognition of a specific or sustained contribution to the welfare of Phil-Mont or its members. Recipient will be selected by the Awards Committee.

Need not be awarded annually.

IDUABMUG AWARD

To be awarded to the Club member adjudged by the Awards Committee to have committed the biggest faux pas of the year.

CERTIFICATE OF APPRECIATION

To be awarded at any time to a member or nonmember who has expended special effort on behalf of the Club in a specific instance. (e.g. Guest speaker; Event chairman)

To be awarded by the President or the Board of Directors.

NOTEWORTHY?

For the first year since 1980, the Awards committee (if there was one) saw fit to make no awards this year. Perhaps none were warranted; Perhaps no one cared; Perhaps things will improve next year. de W3JIM

The Graf Zeppelin was a German airship built in 1928. It was 800 feet long and 100 feet in diameter. The airship was hydrogen filled and could fly up to 70 miles per hour. It was the only airship ever to fly completely around the world.

On August 1, 1929, the Graf Zeppelin left Friedrichshafen, Germany, and flew to Lakehurst, New Jersey. At Lakehurst, the Graf Zeppelin picked up 63 passengers and then headed eastward to start a circumnavigational air trip in the northern hemisphere; Lakehurst to Friedrichshafen, over Siberia to Tokyo, then to Los Angeles, and return to Lakehurst.

Suddenly the radio music of the Clicquot Club Eskimos was interrupted by an announcer who said that the Graf Zeppelin had just been sighted south of Detroit, and was travelling eastward.

My father sprung into action! He turned off the radio and began giving orders, like a Navy Chief, to mother and me. I ran outside and opened the garage doors. Mother locked up the house. Father started the Pontiac Six and backed the car into the driveway. We all were on our way to --- "Where are we going" I asked.

The Pontiac rolled over the bricks (highways and streets were paved with bricks back then) and out onto U.S. Highway 6. My father explained that maybe we could see the Graf Zeppelin if we got to the Vickery light beacon in time.

The tires hummed over the uneven bricks as we drove 45 mph toward the Vickery emergency field. It was a warm night and the sky was clear. Soon we could see the silver shaft of light sweeping the night sky ahead of us; it was the Vickery light beacon probing the sky to guide the pilots at night.

When we finally arrived at the emergency field, and parked along the road, we found that we weren't the only ones who had the same idea. We waited and watched the sky to the north and west for some sign of an airship.

After some time, a single-engine biplane droned overhead, westward toward Toledo, its blue exhaust flame fading into the distant darkness, no doubt a mail plane from Cleveland.

We began to tire of waiting. A neighboring farmer, with a kerosene lantern, walked up the road and approached us. He wanted to know what all these people were doing out here this time of night. He was told about the flight of the Graf Zeppelin, and he, in turn, reported that he had heard on a Cleveland radio station that the airship had been sighted passing to the north of Cleveland, over Lake Erie, and was headed toward Lakehurst.

Because of the clear weather conditions, Dr. Hugo Eckener, Commander of the Graf Zeppelin, had elected to fly over Lake Erie where the winds were more favorable and the air aloft much calmer.

We were all disappointed to have missed seeing the airship; one by one the cars left the field. We returned home at a much slower pace than our earlier trip. The Graf Zeppelin arrived at Lakehurst the next day to complete the trip around the world in 21 days, 8 hours. (The trip from Friedrichshafen and return, 21,250 miles, was navigated in 21 days, 5 hours, 31 minutes.)

Four years later (1933), I had the experience of standing directly under the Navy's new 785 foot long giant rigid airship Macon as it made a test flight over northern Ohio and passed over our city.

relays instructions to a mission control center, which dispatches the rescue units. Mission control in the U.S. is at Scott Air Force Base in St. Louis, Mo. The system is managed by NASA from Greenbelt, MD.

Other earth processing stations are located in Canada, France, Norway, Britain and the USSR. They cover virtually all of the Northern Hemisphere. Ground stations in Brazil and Chile cover only a small portion of the Southern Hemisphere.

After years of debate and discussion, the U.S. Coast Guard recently issued a final rule requiring the new 406 MHz EPIRBs on U.S. uninspected fishing, fish processing and fish tending vessels. These vessels carry 247,000 fishermen each year.

After August 17, 1989, none of these vessels may operate without an automatically activated beacon that operates on either 406 MHz or 121.5 MHz. A grandfather clause will permit the use of old EPIRB units until 1994.

The use of 406 MHz frequency on the new EPIRBs is designed to improve the world wide satellite detection system that is slowly being adopted by world safety organizations. The system uses a new, more powerful, distress beacon that has a signal with greater range and better frequency stability. The radio signal may also be encoded with identification information, which, in some cases, gives the exact location of the distress signal.

The most important advantage of the 406 MHz EPIRB is that is distress signals are processed on-board the satellite and retransmitted to the nearest earth station when in range. This enables the system to cover the entire planet. Additionally, position accuracy is improved. The 406 MHz system can locate distress signals with an accuracy of 2-5 km, whereas the older 121.5 system promises accurate location only to within 20 km.

Tnx to K3IYT & Chesapeake Bay Magazine.

THE YEAR IS 1929 W3VVS

One balmy evening, late in August, we were listening to the Apex Model 11 console radio in our living room. My parents regularly listened to the music of the Cliquot Club Eskimos on the NBC station WJR, Detroit. I was lying on the floor in front of the radio playing with several Tootsie Toy automobiles.

My father grew up in Columbus, Ohio. One of the younger kids in the neighborhood was named Eddie Rickenbacker. This association may have influenced his attitude toward aviation in his later years.

When I was about 7 years old, my father went on a kite flying binge. He made all kinds of kites out of rip-sawn yardsticks obtained free from local hardware stores, and used mother's old dress patterns for covering the kite framework. We flew them from the open fields on grandfather's farm.

The family owned an "automotive equipment" store and my father was the local Goodyear Tire and Rubber Co. dealer and distributor. As a promotional stunt, a small Goodyear "blimp" flew from Akron Ohio and came to town to fly overhead and advertize the "Goodyear" name, as they often did for other tire dealerships. My father was offered a ride over the city but declined when my mother made a big fuss about him being killed - and what about that "no flying" clause in his life insurance policy!

I read, in a library book, all about those light beacons that were visible at night throughout northern Ohio, and how these rotating beacons made "a highway in the sky" at night from coast-to-coast. The U.S. Department of Commerce - Airways Division established these beacons so that aviators and air mail pilots in particular, could fly at night from city to city.

PHIL-MONT's HONOR ROLL

--- OUTSTANDING MEMBER ---

1953	W3JGB	Bob Ferree	1958	W3QQH	Jim Spencer
1954	W3QQH	Jim Spencer	1959	W3WNC	Hy Hecht
	W3QV	Brad Martin	1960	W3QQH	Jim Spencer
1955	W3VXN	Bill Bornmann	1961	W3QQH	Jim Spencer
1956	W3PXY	George King		W3ZPP	Charlie Stouth
1957	W3QQH	Jim Spencer	1962	K3GNJ	Enos Bartol

1963 K3KUD Bob Schmilewske

Award now retired and on permanent display at W3TKQ.

--- LEROY HAUSER MEMORIAL AWARD ---

1964	W3ADV	Fred Shaw	1979	K3KUD	Bob Schmilewske
1965	W3QQH	Jim Spencer	1981	W3PWG	Rollie Madera
1967	W3GOW	Charles Greenwood	1983	N3DHI	Rick Spencer
1968	WA3CNI	Sam Kunceovich	1984	W3IIM	Jack Haring
1971	W3KN	George Weed	1985	AK2I	Jake Kovalchek
	K3TKZ	Ed Jars	1986	W3SRU	Howard Gilpin
1977	W3AWG	Jim Rogers	1987	W3BBB	Jim Spencer

--- PHIL-MONTER OF THE YEAR ---

1962	W3DSG	Ernie Juliani	1968	WA3ARY	Sid Elfant
1963	K3GNJ	Enos Bartol	1979	W3QQH	Jim Spencer
1964	K3CEE	Bob Cox	1981	AK2I	Jake Kovalchek
	K3KUD	Bob Schmilewske	1982	W3AWH	John Tinaglia
1965	W3YHV	Bill Bubeck	1983	WB3KOJ	Don Gordon
	W3YJM	Charles Gilbert	1984	W3IIN	Jinny Haring
1966	W3WNC	Hy Hecht	1985	N3DHI	Rick Spencer
1967	W3QZO	Bob Thomas	1986	AK2I	Jake Kovalchek
			1987	W3RM	Dick Moll

--- LADY PHIL-MONT AWARD ---

1962	.....	Peg Schmilewske	1967	K3QNX	Shelley Klein
1963	.....	Elaine Spencer	1971	K3QNX	Shelley Klein
1964	.....	Edna McVaugh		.....	Lillian Jars
1965	W3ZLE	Dot Jorrett	1979	.....	Lou Andrews
1966	.....	Emma Shaw	1987	.....	Stella Tinaglia

--- GEORGE WEED MEMORIAL AWARD ---

1981	W3VVS	Paul Bohlander	1986	.....	Sam Kunceovich
1983	W3RM	Dick Moll	1987	W3IIM	Jack Haring
1984	W3BBB	Jim Spencer		W3IIN	Jinny Haring

--- IDAUBMUG AWARD ---

(GUMBUADI spelled backwards).

1963	W3ADV	Fred Shaw	1967	K3HIJ	Joe Elmaleh
1964	W3GIF	Al Hamilton	1970	W3QQH	Jim Spencer
1965	W3AWH	John Tinaglia	1971	K3PHC	Jim Bock
1966	W3YHV	Bill Bubeck		W3VXN	Bill Bornmann

HIGH DEFINITION TELEVISION:

Suppliers can now play by the FCC's new rules

The skies have cleared considerably for High Definition Television (HDTV) service in the time since our August report on the subject. The Federal Communications Commission has, with uncharacteristic swiftness, issued some guidelines on the subject. As a result, the companies, which have been attempting to develop HDTV systems, now have a set of ground rules to play by.

What the FCC has decreed is not so surprising. Stated simply, HDTV broadcasts must use the existing VHF and UHF television bands. In transmitting over those bands, the terrestrial broadcasters may not use more than 12 MHz of bandwidth (a conventional NTSC "channel" now occupies 6 MHz). Finally, any HDTV signal must be compatible with the current NTSC system, so that the screens don't go dark for owners of current TV sets. How the developers of HDTV go about achieving this is their own business: The FCC won't put any fetters on the technological imagination.

The day after the FCC's September 1 pronouncement, Zenith Electronics unveiled its contribution to the party, the Spectrum-Compatible HDTV System. An examination of the Zenith proposal indicates that it's the technological equivalent of having your cake and eating it, too.

Quite simply, what Zenith has developed is a way of squeezing a 30 MHz HDTV signal into the 6 MHz space of a conventional NTSC channel. And because of the way the signal is encoded and transmitted, it can occupy the unused, "taboo" channels that now act as buffer zones between active NTSC channels. As the icing on the cake, Zenith's 6 MHz HDTV system would also permit cable operators to carry the signal without having to modify their systems.

The essence of the Zenith system is the way it improves upon the current method of broadcasting NTSC signals. Specifically, the reason for the "taboo" bands between TV channels is that the great amount of power required to transmit an NTSC signal would cause interference on an adjacent channel. That is why, in large cities, the FCC allocates only every other VHF channel, and every sixth UHF channel.

According to Zenith, it is the low-frequency components of the NTSC signal that require the most power for transmission. These are the frequencies below 200 KHz. The higher-frequency portion above 200 KHz uses less than one percent of the energy needed for the complete broadcast signal, says Zenith. This is very similar to music reproduction in a home hi-fi system: It's the low-frequency bass notes that really put the strain on an amplifier.

Zenith's Spectrum-Compatible system uses digital compression to reduce the transmission-power requirement by about 90 percent - or only 10 percent of the amount required to transmit a conventional NTSC broadcast with the same service area. Actually, Zenith splits the HDTV signal into two frequency bands. The video portion above 220 KHz is still transmitted as analog information. Meanwhile, the video signals below 20 KHz, along with the audio, the synchronization and other information, are converted to digital form and transmitted during the vertical blanking interval.

Because the digitized information can be transmitted more efficiently than if it were in analog form, says Zenith, the low power levels required won't interfere with broadcasts transmitted over the adjacent channels. This means the formerly "taboo" channels can now be used. In practice, a TV station could continue broadcasting conventional NTSC programs over its current channel, and air the HDTV version of the same program over the previously vacant adjacent channel.

PIN-POINT AIR SEA RESCUE

A new satellite and EPIRB frequency improve rescue systems for shipwrecked sailors

On September 13th, 1988, the NOAA-11 satellite was launched aboard an Air Force Atlas-E vehicle from Vandenberg Air Force Base in California. It joins the orbiting NOAA-9 and 10 satellites to provide better coverage and more accuracy to the COSPAS/SARSAT system. This is a satellite rescue system operated jointly by the United States, France, and the Soviet Union. It is designed primarily to provide for worldwide rescue of airmen and sailors in distress.

COSPAS is a Russian acronym for the Soviet part of the search-and-rescue system which relays distress signals from Emergency Position Indicating Radio Beacons (EPIRBs) on vessels in distress on the high seas.

At present there are three classes of EPIRBs. Class C, designed primarily for use in coastal waters, transmits a distress signal over VHF marine radio channels 16 and 15. Classes A and B EPIRBs transmit their distress signals simultaneously over 121.5 and 243.0 MHz. These higher frequency transmissions are received and stored by orbiting satellites, then relayed to a ground station when one comes in range. These will now be replaced by new EPIRBs transmitting on 121.5 MHz and the new 406 MHz frequency.

Since 1982, when the first Soviet COSPAS satellite was placed into orbit, more than 596 victims of aviation accidents and 506 sailors in distress on the high seas have been rescued when the distress signals from their EPIRBs were relayed via satellite.

Before the launch of the NOAA-11 Satellite last September, there were two COSPAS and two SARSAT satellites in the system. Under this configuration, the satellites could detect a distress

Continued from 8
Fooled The Eye

For the record, the sleight-of-hand that Zenith accomplishes in squeezing 30 MHz of information into 6 takes advantage of the peculiarities of the human eye. Because the eye is more sensitive to detail in still images than in moving images, and because most of what appears in any TV scene is stationary imagery that's redundant from frame to frame, the Zenith system transmits stationary images at higher resolution than the moving ones. This method economizes on bandwidth.

As you might suspect, Zenith's HDTV scheme puts a great burden on the HDTV monitor/receiver in the home. Extensive digital signal-processing will be required. Here, Zenith offers little information on the actual hardware, except to speculate that only one megabyte of field memory will be required. The end product would be a 787.5-line progressively scanned display, which Zenith claims is comparable in resolution to a 1,000-plus-line interlaced display. Width-wise, Zenith says its system can provide whatever width-to-height aspect ratio the marketplace demands - be it 16 to 9, 5 to 3 or even today's 4 to 3. Audio, of course, would be digital stereo, with CD-level quality. The company adds that VCRs would keep pace with the HDTV broadcast system, in that the 6 MHz of bandwidth required is only slightly more than current Super VHS machines now accommodate.

Tnx to Consumer Electronics

signal within an average of two hours anywhere on the planet.

But the signals had to be stored aboard the satellite, to be transmitted to earth stations only when an earth relay station came into range. The earth station processes the signal, then

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ENGINEERING DATA

CONVERSION FACTORS

MULTIPLY BY TO OBTAIN

Atmospheres	78.0	cms mercury
atm	29.92	ins mercury
atm	33.90	ft water
atm	1.0333	kgs/sq cm
atm	14.70	lbs/sq in
atm	1.058	tons/sq ft
Barrels-Oil	42	gals-oil
BT Units	0.2520	kgs-calories
BTU's	777.5	ft-lbs
BTU's	3.927x10 ⁻⁴	hp-hrs
BTU's	107.5	kg-meters
BTU's	2.928x10 ⁻⁴	kw-hrs
BTU Min	12.96	ft-lbs/sec
BTU/min	0.02356	hp
BTU/min	0.01757	kw
BTU/min	17.57	watts
Centimeters	0.3937	inches
cm	0.01	meters
cm	10	mm
Cms Mercury	0.01316	atm
cms mercury	0.4461	ft water
cms mercury	136.0	kgs/sq meter
cms mercury	27.85	lbs/sq ft
cms mercury	0.1934	lbs/sq in
Cms/Second	1.969	ft/min
cms/sec	0.03281	ft/sec
cms/sec	0.036	km/hr
cms/sec	0.8	meters/min
cms/sec	0.02237	miles/hr
cms/sec	3.728x10 ⁻⁴	mi/min
Cms/Sec/Sec	0.03281	ft/sec/sec
Cubic Cms	3.531x10 ⁻⁵	cu ft
cu cms	6.102x10 ⁻²	cu in
cu cms	10 ⁻⁶	cu meters
cu cms	1.308x10 ⁻⁴	cu yds
cu cms	2.642x10 ⁻⁴	gals
cu cms	10 ⁻³	liters
cu cms	2.113x10 ⁻³	pints (liq)
cu cms	1.057x10 ⁻³	quarts (liq)
Cubic Feet	2.832x10 ⁻⁴	cubic cms
cu ft	1728	cu inches
cu ft	0.02832	cu meters
cu ft	0.03704	cu yds
cu ft	7.48052	gals
cu ft	26.32	liters
cu ft	59.84	pints (liq)
cu ft	29.92	quarts (liq)
Cu Ft/min	472.0	cu cms/sec
cu ft/min	0.1247	gals/sec
cu ft/min	0.4720	liters/sec
cu ft/min	62.43	lbs w/min
Cu Ft/Sec	0.646317	Million gals/day
cu ft/sec	448.831	gals/min
Cu Inches	16.39	cc
cu ins	5.787x10 ⁻⁴	cu ft
cu ins	1.639x10 ⁻³	cu meters
cu ins	2.143x10 ⁻³	cu yds
cu ins	4.329x10 ⁻³	gals
cu ins	1.639x10 ⁻²	liters
cu ins	0.03463	pints (liq)
cu ins	0.01732	quarts (liq)
Cu Meters	10 ⁴	cc
cu M	35.31	cu ft
cu M	61.023	cu ins
cu M	1.308	cu yds
cu M	264.2	gals
cu M	10 ³	liters
cu M	211.3	pints (liq)
cu M	1057	quarts (liq)
Cu Yards	7.646x10 ³	cu cms
cu yds	27	cu ft
cu yds	46.656	cu ins
cu yds	0.7646	cu meters
cu yds	202.0	gals
cu yds	764.6	liters
cu yds	1616	pints (liq)
cu yds	807.9	quarts (liq)
Decimeters	0.1	meters
Degs (Angle)	60	minutes
deg (angle)	0.01745	radians
deg (angle)	3600	secs
Degrees Sec	0.01745	radians/sec
deg/sec	0.1667	revs/min
deg/sec	0.002778	revs/sec
Fathoms	6	ft
Feet	30.48	cms
ft	12	ins
ft	0.3048	meters
ft	1/3	yds
ft of Water	0.02950	atms
ft of w	0.8876	ins mercury
ft of w	0.08048	kgs/sq cm
ft of w	62.43	lbs/sq ft
ft of w	0.4335	lbs/sq in

MULTIPLY BY TO OBTAIN

Feet Min	0.5080	cms/sec
ft/min	0.01687	ft/sec
ft/min	0.01829	kms/hr
ft/min	0.3048	ms/min
ft/min	0.01136	miles/hr
Ft/Sec/Sec	30.48	cms/sec/sec
ft/sec/sec	0.3048	ms/sec/sec
Ft Pounds	1.286x10 ⁻³	BTUs
ft-lbs	5.050x10 ⁻⁷	hp-hrs
ft lbs	3.241x10 ⁻⁴	kg-calories
ft lbs	0.1383	kg-meters
ft lbs	3.766x10 ⁻⁷	kw-hrs
ft-lbs/Min	1.286x10 ⁻³	BTUs/min
ft-lbs/min	0.01667	ft-lbs/sec
ft-lbs/min	3.030x10 ⁻³	hp
ft-lbs/min	3.241x10 ⁻⁴	kg-calories/min
ft-lbs/min	2.260x10 ⁻⁵	kw
Ft-Lbs/Sec	7.717x10 ⁻²	BTUs/min
ft-lbs/sec	1.818x10 ⁻³	hp
ft-lbs/sec	1.945x10 ⁻²	kg-calories/min
ft-lbs/sec	1.356x10 ⁻³	kw
Gallons	3785	ccs
gals	0.1337	cu ft
gals	231	cu ins
gals	3.785x10 ⁻³	cu meters
gals	3.785	liters
gals	8	pints (liq)
gals	4	quarts (liq)
Gallons, Imp	1.20095	US gals
gallons, US	0.83267	imp gals
Gallons Water	8.3453	lbs water
Gallons/Min	2.228x10 ⁻³	cu ft/sec
gals/min	0.06308	liters/sec
gals/min	8.0208	cu ft/hr
Gals Water/Min	6.0086	tons water/24 hrs
Grams	980.7	dynes
grams	15.43	grains
grams	10 ⁻³	kgs
grams	0.03527	milligrams
grams	0.03215	ozs
grams	2.205x10 ⁻³	ozs (troy)
Grams/Cm	5.600x10 ⁻³	lbs/in
Grams/Cu Cm	62.43	lbs/cu ft
grams/cu cm	0.03613	lbs/cu in
Grams/Liter	58.417	grains/gal
grams/liter	8.345	lbs/1000 gals
grams/liter	0.062427	lbs/cu ft
grams/liter	1000	parts/million
Horse-Power	42.44	BTUs/min
hp	33.000	ft-lbs/min
hp	550	ft-lbs/sec
hp	1.014	hp (metric)
hp	10.70	kg-calories/min
hp	0.7457	watts
hp	2547	BTUs
Hp-Hours	7457	ft-lbs
hp-hrs	1.98x10 ⁶	kg-calories
hp-hrs	641.7	kg-meters
hp-hrs	2.737x10 ⁵	kw-hrs
hp-hrs	0.7457	cms
Inches	2.540	atms
ins Mercury	0.03342	ft water
ins mercury	1.133	kgs/sq cm
ins mercury	0.03453	lbs/sq ft
ins mercury	70.73	lbs/sq in
ins mercury	0.4912	atms
ins of Water	0.002458	ins mercury
ins of w	0.07355	kgs/sq cm
ins of w	0.5781	ozs/sq in
ins of w	0.002540	lbs/sq ft
ins of w	0.5781	lbs/sq in
ins of w	5.202	dynes
ins of w	0.03613	lbs
Kilograms	980.665	dynes
kgs	2.205	lbs
kgs	1.102x10 ⁻³	tons (short)
kgs	10 ³	grams
Kgs/Sq Cm	0.9678	atms
kgs/sq cm	32.81	ft water
kgs/sq cm	28.96	ins mercury
kgs/sq cm	204.8	lbs/sq ft
kgs/sq cm	14.22	lbs/sq in
Kiloliters	10 ³	liters
Kilometers	10 ³	cms
kms	3281	ft
kms	10 ³	meters
kms	0.6214	miles
Kms Hr	27.78	cms/sec
kms hr	54.68	ft/min
kms hr	0.9113	ft/sec
kms hr	16.67	meters/min
kms hr	0.6214	miles/hr
Kms/Hr Sec	27.78	cms/sec/sec
kms/hr sec	0.9113	ft/sec/sec
kms/hr sec	0.2778	Ms/sec/sec

MULTIPLY BY TO OBTAIN

Kilowatts	56.82	BTUs/min
kw	4.425x10 ⁴	ft-lbs/min
kw	737.6	ft-lbs/sec
kw	1.341	hp
kw	14.34	kg-calories/min
kw	10 ³	watts
kw	3415	BTUs
Kilowatt-Hrs	2.655x10 ⁶	ft-lbs
kw-hrs	1.341	hp-hours
kw-hrs	860.5	kg-calories
kw-hrs	3.671x10 ⁵	kg-meters
kw-hrs	10 ³	ccs
Liters	0.03531	cu ft
liters	61.02	cu ins
liters	10 ⁻³	cu meters
liters	0.2842	gals
liters	1.057	quarts (liq)
Liters/Min	4.403x10 ⁻³	gals/sec
Meters	100	cms
meters	3.281	ft
meters	39.37	ins
meters	10 ⁻³	kms
meters	10 ³	mm
meters/min	1.667	cms/sec
meters/min	3.281	ft/min
meters/min	0.05468	ft/sec
meters/min	0.06	kms/hr
meters/min	0.03728	miles/hr
Meters/Sec	196.8	ft/min
meters/sec	3.281	ft/sec
meters/sec	3.6	kms/hr
meters/sec	0.06	kms/min
meters/sec	2.237	miles/hr
meters/sec	0.03728	miles/min
Microns	10 ⁻⁴	meters
microns	25.400	ins
Miles/Hr	44.70	cms/sec
miles/hr	88	ft/min
miles/hr	1.467	ft/sec
miles/hr	1.609	kms/hr
miles/hr	0.8684	knots
miles/hr	26.82	meters/min
Millimeters	0.1	cms
mm	0.03937	ins
Mins (Angle)	2.909x10 ⁻⁴	radians
Ounces	16	grams
ozs	437.5	grams
ozs	0.0625	lbs
ozs	28.349527	grams
ozs	0.9115	ozs (troy)
ozs	2.790x10 ⁻⁵	tons (long)
ozs	2.835x10 ⁻⁵	tons (metric)
Ozs (Fluid)	1.805	cu in
ozs (fluid)	0.02957	liters
Pounds	16	ozs
lbs	256	drams
lbs	7000	grains
lbs	0.0005	tons (short)
lbs	453.5924	grams
lbs	1.21528	lbs (troy)
lbs	14.5833	ozs (troy)
lbs	0.01602	cu ft
Lbs of Water	27.68	cu in
lbs of water	0.1196	gals
Lbs of W/Min	2.679x10 ⁻⁴	cu ft/sec
Pounds/Cu Ft	5.787x10 ⁻⁴	lbs/cu in
Pounds/Cu In	1728	lbs/cu ft
Pounds/Sq In	0.06804	atms
lbs/sq in	2.307	ft water
lbs/sq in	2.036	ins mercury
lbs/sq in	0.07031	kgs/sq cm
Radians	57.29578	degrees
Tons (Long)	1016	kgs
tons (long)	2240	lbs
tons (long)	1.12000	tons (short)
Tons (Short)	2000	lbs
tons (short)	32000	ozs
tons (short)	907.18486	kgs
tons (short)	2430.56	lbs (troy)
tons (short)	0.89287	tons (long)
tons (short)	29166.66	ozs (troy)
tons (short)	0.90718	tons (metric)
Watts	0.05692	BTUs/min
watts	44.26	ft-lbs/min
watts	0.7376	ft-lbs/sec
watts	1.341x10 ⁻³	hp
watts	0.01434	kg-calories/min
watts	10 ⁻³	kw
Watt-Hours	3.415	BTUs
watt-hrs	2655	ft-lbs
watt-hrs	1.341x10 ⁻³	hp-hrs
watt-hrs	0.8605	kg-calories
watt-hrs	367.1	kg-meters
watt-hrs	10 ⁻³	kw-hrs

1989

FEBRUARY

1989

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
			1	2 <i>Groundhog Day</i>	3	4
5 2M NCS W3HNP 10M NCS ANYONE 75M NCS W3PWG	6 GENERAL MEETING & LICENSE EXAMS <i>Ronald Reagan's Birthday - 1911</i>	7 CODE PRACTICE NET at 8 PM <i>Mardi Gras</i>	8 <i>Ash Wednesday</i>	9	10	11 <i>Thomas Edison's Birthday - 1847</i>
12 2M NCS W3AWG 10M NCS ANYONE 75M NCS W3AOA <i>Abraham Lincoln's Birthday - 1809</i>	13	14 CODE PRACTICE NET at 8 PM <i>St. Valentine's Day</i>	15 DIRECTORS' MEETING at KA3AMO & N3FTC's	16	17	18
19 2M NCS KA3AMO 10M NCS ANYONE 75M NCS W3RCE	20 <i>President's Day</i>	21 CODE PRACTICE NET at 8 PM	22 <i>George Washington's Birthday - 1732</i>	23	24	25
26 2M NCS KB3IV 10M NCS ANYONE 75M NCS AK2I	27	28 CODE PRACTICE NET at 8 PM				